

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 26

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte PHILIPPE PRADERE

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Appeal No. 96-3394  
Application No. 08/178,748<sup>1</sup>

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HEARD: July 15, 1999

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Before KRASS, FLEMING, and BARRY, Administrative Patent Judges.

KRASS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the final rejection of claims 6 through 12, all of the claims remaining in the application.

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<sup>1</sup> Application for patent filed January 7, 1994.

The invention is directed to an image converter. More particularly, glimmer from a surface of an insulating part which supports electrodes is reduced, or eliminated, by covering the insulating parts with a thin layer of amorphous diamond-like carbon.

Independent claim 6 is reproduced as follows:

6. An image converter tube including a vacuum chamber and within the vacuum chamber comprising:

an input screen including a scintillator and a photocathode, for converting input X-rays into electrons;

an output screen for receiving the electrons generated by the input screen;

an electronic optical unit for focusing the electrons onto the output screen, the electronic optical unit comprising:

a plurality of electrodes;

a plurality of insulating parts fixing the plurality of electrodes; and

a thin layer of amorphous diamond-like carbon formed to cover the plurality of insulating parts.

The examiner relies on the following references:

Kaseman	4,001,618	Jan. 4,
1977		
Ichikawa et al. (Ichikawa)	4,459,508	Jul. 10,
1984		

In addition, the examiner relies on appellant's admitted prior art [APA] at pages 1-2 of the specification regarding the use of a scintillator associated with a screen and a photocathode for the purpose of converting X-rays to electrons.

Claims 6 through 12 stand rejected under 35 U.S.C. 103 as unpatentable over Ichikawa in view of APA and further in view of Kaseman.

Reference is made to the briefs and answer for the respective positions of appellant and the examiner.

OPINION

We reverse.

We have carefully considered the evidence before us including, inter alia, the arguments of appellant and the examiner and we find ourselves in agreement with appellant that the examiner has improperly based the obviousness rejection on appellant's own disclosure.

Independent claim 6 requires "a thin layer of amorphous diamond-like carbon formed to cover the plurality of insulating parts." The examiner recognizes that neither Ichikawa nor APA discloses this explicit claim limitation. The examiner turns to Kaseman, citing column 3, lines 35-37, for the use of

chromic oxide as an insulator layer coating, similar to that used by Ichikawa, and for the teaching that other coatings having similar characteristics may be employed. The examiner also points to column 3, lines 43-49, of Kaseman for the suggestion of selecting a material based on the amount of conductivity desired, the examiner concluding that appellant's choice of a material is a "matter of choice in design" [answer-page 5].

The problem with the examiner's rationale is that while Kaseman refers to choosing materials based on conductivity, there is no suggestion whatsoever in either Kaseman or Ichikawa to use the material explicitly claimed by appellant, i.e., "a thin layer of amorphous diamond-like carbon..." The only disclosure of the use of this material for the claimed function is in appellant's own disclosure. For the examiner to conclude that such would have been obvious, within the meaning of 35 U.S.C. 103, based on a nebulous disclosure by Kaseman of a coating of "slightly conductive material," would amount to unsubstantiated speculation which can only be rooted in improper hindsight gleaned from appellant's own disclosure of a

thin layer of amorphous diamond-like carbon formed to cover the plurality of insulating parts.

The examiner's charge of "matter of choice in design" has no credence here because, while the examiner contends that appellant has offered no evidence of "criticality" for this claimed limitation, the instant specification clearly indicates why the use of this material has advantages over the prior art. Page 11 of the specification indicates that a layer of amorphous carbon deposited by a specific technique is employed to get the low secondary electron emission rate, the homogeneity and the very low conductivity sought by appellant. Page 12 of the specification indicates that

Amorphous diamond-like carbon deposited in thin layers by sputtering or by PECVD is perfectly homogeneous and adheres to its support. It does not generate any dust like chromium oxide paint.

Thus, the instant specification is full of advantages and reasons, i.e., criticality, as the examiner calls it, as to why appellant chooses to use amorphous diamond-like carbon. Accordingly, the use of this material is more than a mere design choice as alleged by the examiner.

None of the cited references discloses or suggests the amorphous diamond-like carbon formed to cover the plurality of insulating parts, as claimed.

Accordingly, the examiner's decision rejecting claims 6 through 12 under 35 U.S.C. 103 is reversed.

REVERSED

ERROL A. KRASS	)	
Administrative Patent Judge	)	
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	)	
	)	BOARD OF PATENT
MICHAEL R. FLEMING	)	APPEALS
Administrative Patent Judge	)	AND
	)	INTERFERENCES
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LANCE LEONARD BARRY	)	
Administrative Patent Judge	)	

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Page 8

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